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Mobile market competitiveness disparities in EU27

Consumer prices • mobile internet penetration • investments • speed • radio spectrum efficiency

ECTA 'Single Market for Telecoms' conference

Brussels 25 June 2013

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Competition – Where do we stand?

- "Ensuring competition in the Single Market is a pre-condition. Competition is, in many ways, one of the most efficient structural reforms we can implement – and without any cost for public budgets – to increase the productivity and competitiveness of our economy."

- "At the same time, we ought to make sure that companies do not carry out their plans at the expense of European consumers, of their business partners, and of the competition conditions in the EU."

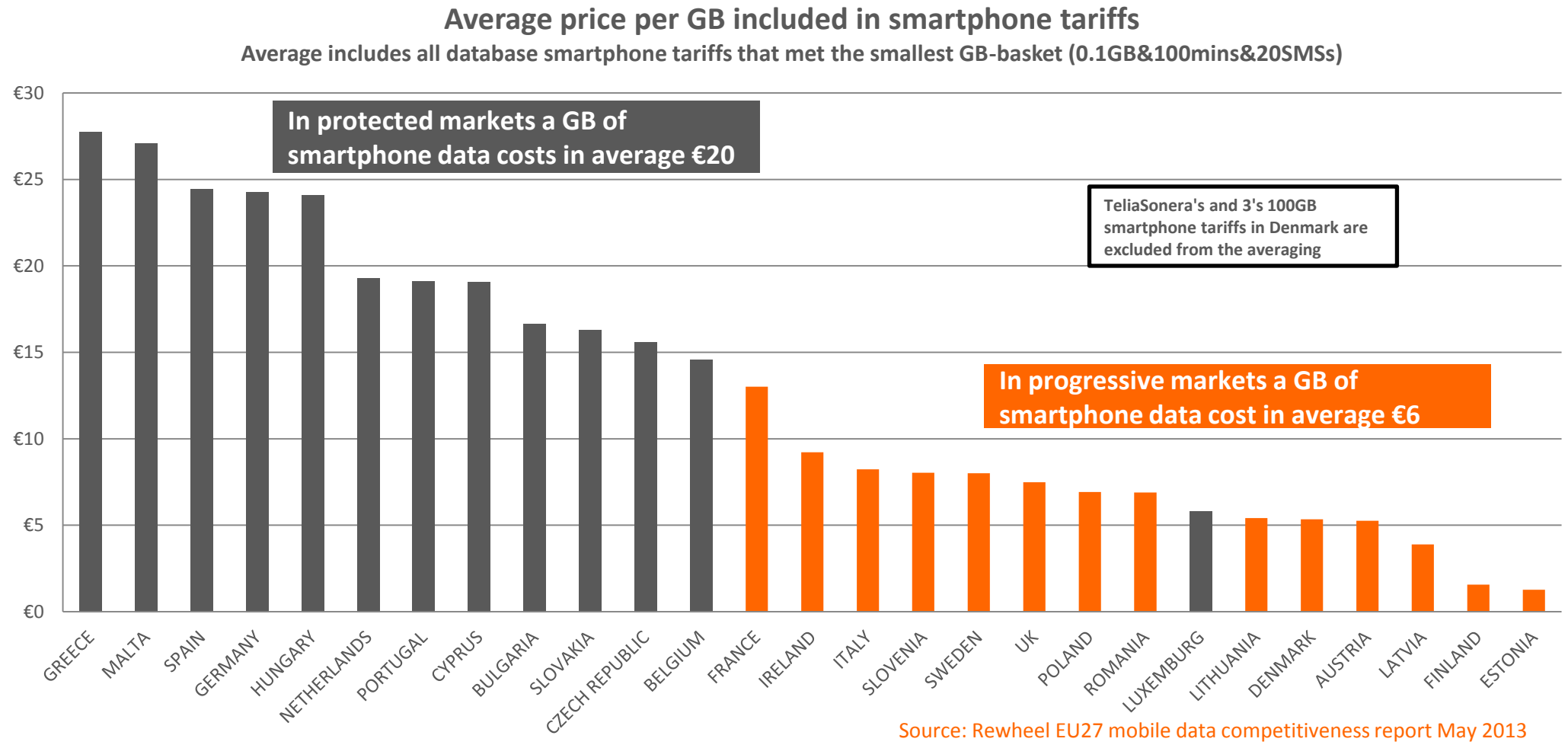
- "But let us not forget that around 80% of mobile-phone subscriptions are with four leading European groups. This market structure has not brought us closer to a Single Market for cell-phones; one where we can actually buy and use mobile services freely across the EU."

- "To make matters worse, in many countries there are only few network operators and the barriers to entry are high."

- "Research shows that users pay up to ten times more to use their smartphones in those Member States where there is no challenger to the big European operators." Rewheel EU27 smartphone tariff competitiveness report

Quotes from Vice President Almunia's speech given at the second annual European Competition Forum Brussels 28th February 2013

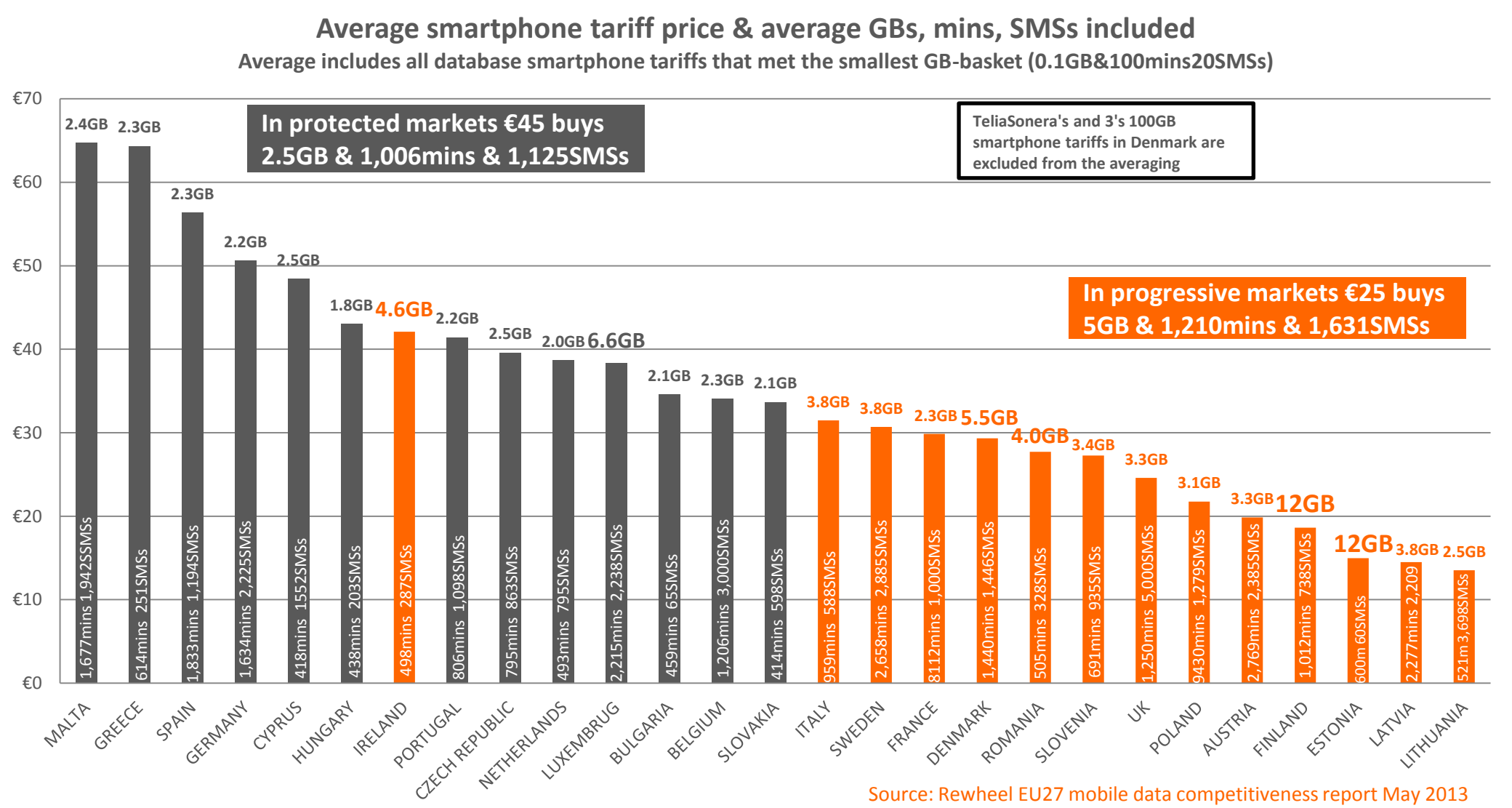
So are all EU27 national mobile markets competitive?



Source: Rewheel EU27 mobile data competitiveness report May 2013

Far from it. The Germans pay on average 3 times more for a GB of smartphone data than the British while the ressession battered Greeks pay 18 times more than the Finns!

So are all EU27 national mobile markets competitive?

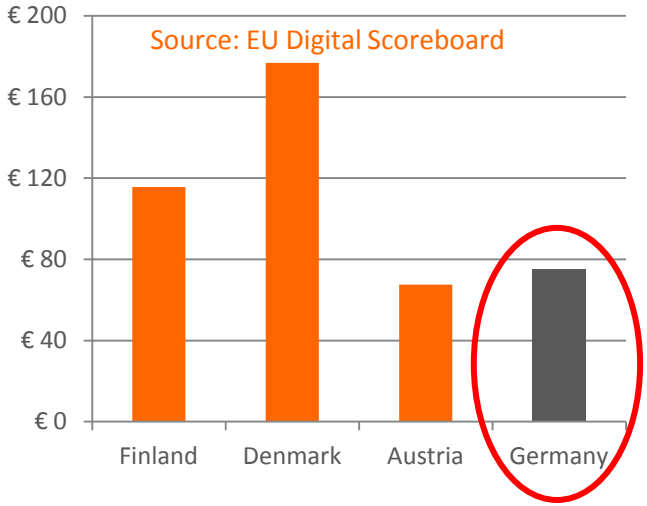


Source: Rewheel EU27 mobile data competitiveness report May 2013

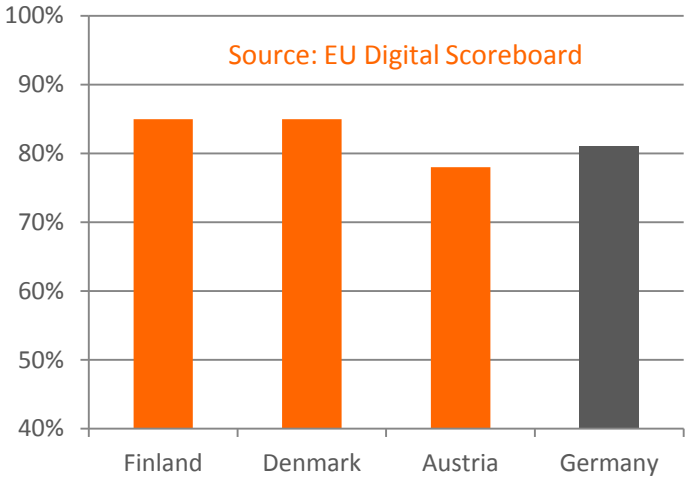
In protected markets like Greece consumers need to pay €64 to buy an accomodative smartphone tariff with 2GB of data. In Finland €18 buys 12GB and many more mins and SMS

Would consolidation lead to economies of scale, more investment and lower prices?

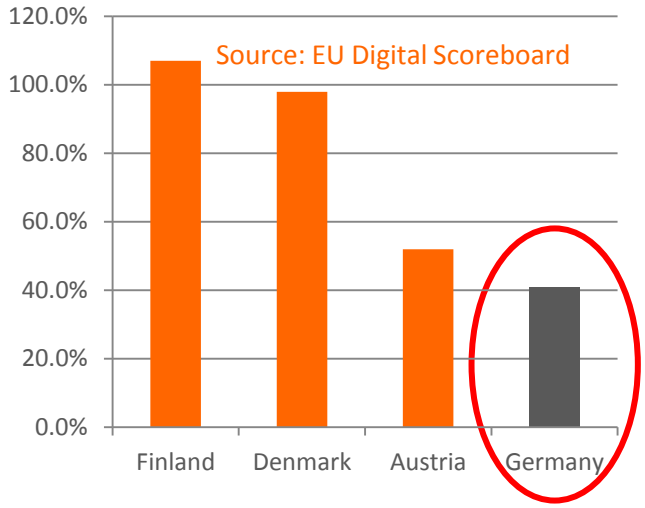
Annual average telecom investment per capita 2009-2011



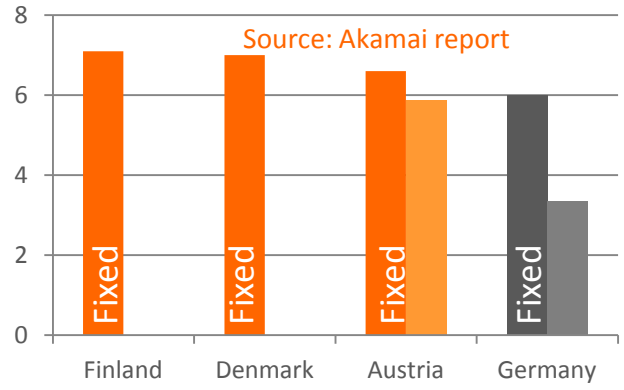
% of households with broadband connections 2012



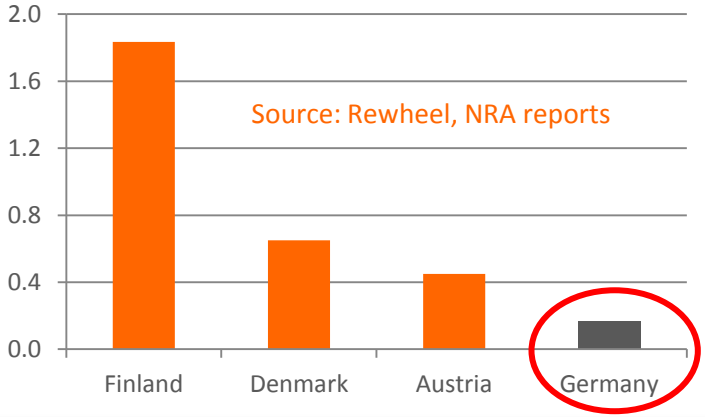
% of population mobile internet connections 2013



average fixed & mobile connections speed (Mbps) 2012



monthly mobile data consumption per capita (GB) 2012

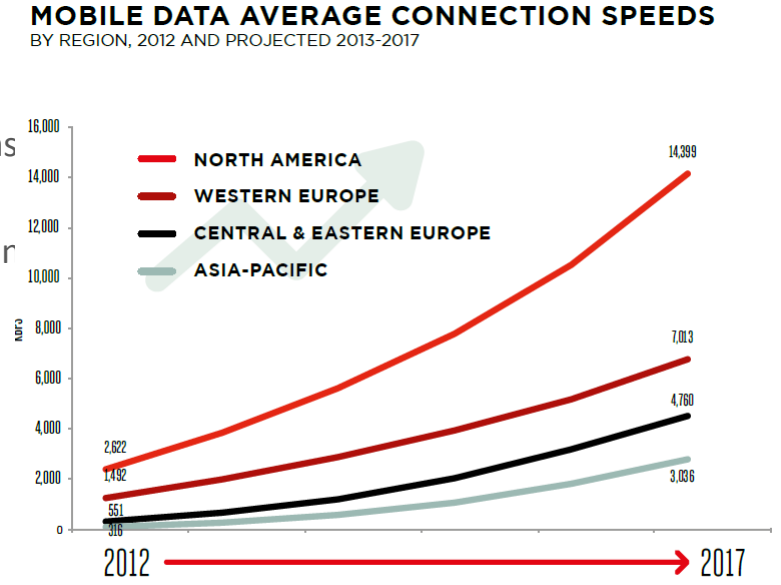


average smartphone tariff basket price (€) 2013

No. In many small EU markets having ten times smaller population than in Germany MNOs invest more per capita, broadband penetrations are higher, mobile networks are faster, mobile data consumption per capita is up to tens times higher and prices are more than three times lower

VP Kroes “For mobile, average European data speeds are half of those of the US”

- Ms. Kroes’s statement was made during the “A Single Telecom Market for Growth and Jobs in Europe” public event on 17 June 2013. The statement seems to be based on the GSMA/Navigant report May 2013. The average US and Europe speeds are based on Cisco's GiST (Global Internet Speed Test) application However, the GSMA Navigant report also cites Akamai’s report findings in page 12 footnote 9.



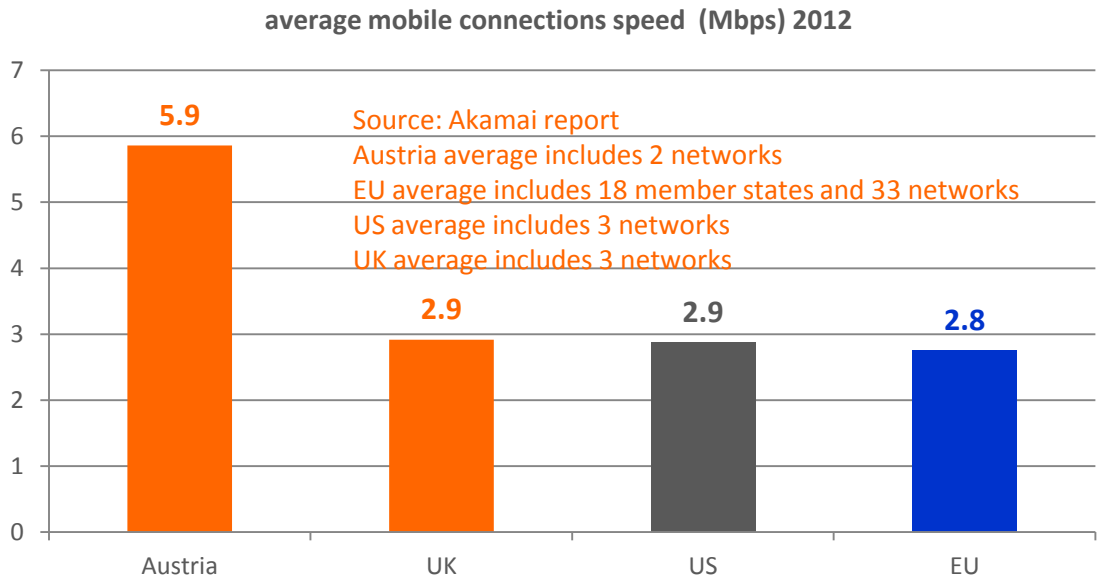


Figure 7

Singapore	SG-3	1654	9150
Sri Lanka	LK-1	1253	11220
Taiwan, Province Of China	TW-1	1656	9657
Taiwan, Province Of China	TW-2	1100	5582
Thailand	TH-1	1149	24298
EUROPE			
Austria	AT-1	3685	15563
Austria	AT-2	8032	31204
Belgium	BE-3	1904	11424
Czech Republic	CZ-1	1667	5658
Czech Republic	CZ-3	5416	17328
Czech Republic	CZ-2	1274	7989
Estonia	EE-1	1643	8251
France	FR-2	2641	10195
Germany	DE-1	1317	6260
Germany	DE-2	5390	26244
Greece	GR-1	5061	20645
Hungary	HU-2	2237	10770
Hungary	HU-1	1564	7950
Ireland	IE-1	2987	16192
Ireland	IE-2	1891	18152
Ireland	IE-3	2246	18954
Israel	IL-1	1375	6552
Italy	IT-2	2981	16943
United Kingdom	UK-3	2937	15560
United Kingdom	UK-2	3087	14793
United Kingdom	UK-1	2727	24181
NORTH AMERICA			
Canada	CA-2	1065	2758
El Salvador	SV-2	1852	12315
El Salvador	SV-1	1779	10711
El Salvador	SV-3	839	4357
Guatemala	GT-2	2487	14599
United States	US-1	2641	8602
United States	US-2	4609	17016
United States	US-3	1365	4568
OCEANIA			
Australia	AU-3	2453	17132
New Zealand	NZ-2	2044	12637
SOUTH AMERICA			
Argentina	AR-1	850	5299
Argentina	AR-2	2205	18456
Bolivia	BO-1	627	4738
Brazil	BR-1	1011	8113
Brazil	BR-2	1398	10745
Chile	CL-3	1987	14727
Chile	CL-4	1304	12476
Colombia	CO-1	1393	7970

Akamai : The State of the Internet 4th Quarter, 2012 Report

Not true! According to Akamai ’s research EU average mobile connection speed is in parity with US
Austrians pay 10 times less than the US consumers for mobile data and enjoy 2 times faster speeds
The EU average in the Akamai report does not include the Nordics which have higher speeds

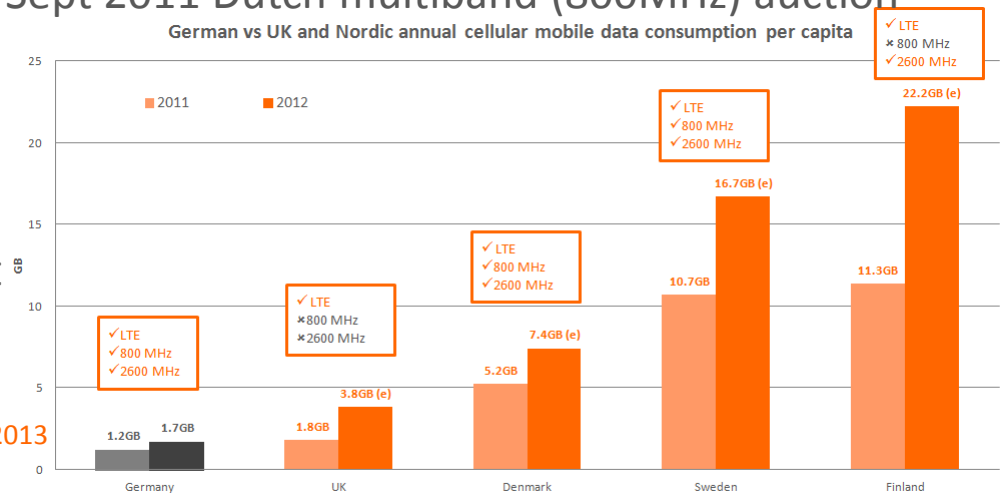
Are national regulators to blame for the low LTE penetration in Europe?

- Germany was the first EU country to assign the 800MHz band in 2010. Yet nearly 3 years later it is lagging behind other progressive markets in all metrics (penetration, network speeds, consumption, prices)

- "It has been very disappointing to witness the extent to which the incumbent mobile operators have chosen to entangle this process in litigation or threats of litigation," Ed Richards Ofcom 29 Nov 2011

- “The proposed auction rules are therefore unfavourable for consumers and businesses. KPN is now investigating the possibility of legal action" KPN 16 Sept 2011 Dutch multiband (800MHz) auction

- Vodafone Czech Republic petitions CTU to stop the 800MHz LTE auction. Vodafone is against a plan to reserve a lucrative 800MHz band for a new market entrant. Prague Daily Monitor 12 June 2013



Source: Rewheel EU27 mobile data competitiveness report May 2013

Multinational incumbent telco groups are often dragging their foot, treatening with legal action and do all that they can to delay and derail NRA plans to auction LTE spectrum. Facing no accute spectrum crunch (high prices are holding back penetration, consumption and lead to spectrum underutilization) their main strategy is to block market access to new entrants with data centric LTE business models

Is the US telecom market a model for EU's single telecom market?

"**In the States, an effective duopoly makes life hard for new entrants**, if not impossible. And rules like equity caps or unequal access to spectrum and networks are outdated, and have no place in a truly open market."

Vice President Kroes statement from the American Chamber of Commerce EU conference/ Brussels 17/06/2013

Clearly no! EU's single telecom market should converge to the progressive, data centric competitive Nordic, Austrian or UK market model

So what needs to be done – First things first!

Mobile data retail cost transparency & convergence in EU27 member state markets

- The Commission has been tracking in Digital Agenda's Scoreboard the retail cost of voice minutes (average revenue per minute). It should, starting already in 2013, also introduce and **track the retail cost of mobile data** (average revenue per GB of smartphone data); which is one of the most relevant cost competitiveness metrics of the digital economy
- Protect consumers against deliberately complicated pricing practices and improve retail transparency **by introducing a reference smartphone tariff** that all licensed MNOs in EU27 member states must price and make commercially available (having no VoIP or tethering restrictions)

Inefficient use of scarce national spectrum resources

- The Commission has been tracking in Digital Agenda's Scoreboard the penetration of mobile broadband active users. It should, starting already in 2013, also introduce and track the **mobile data consumption per capita for member states** and **mobile data consumption per customer for MNOs**. Penetration alone is not an adequate metric of digital progressiveness if consumption is systematically severely restricted by the supply side (MNOs).
- Introduce provisions in EU's Regulatory framework for electronic communications that will empower national regulatory authorities **to attach efficient spectrum usage license conditions** (spectrum hoarding occurs both when an MNO accumulates relatively high amount of spectrum but as well when MNOs are heavily underutilizing their spectrum holdings, see Finnish mobile data consumption per capita which is more than ten times higher than in Germany).

As energy cost is a key aspect of industrial competitiveness, communication (particularly mobile data) cost is a key aspect to digital competitiveness. Source Rewheel

Shouldn't Europe's digital scoreboard measure the cost of digital competitiveness?

“Ensuring competition in the Single Market is a pre-condition” VP Almunia

- **Introduce competition in EU’s 13 protected markets (eg. Germany, Greece, Hungary, Czech, Belgium)**
  - Introduce provisions in EU’s Regulatory framework for electronic communications that will mandate national regulatory and competition authorities to carry out periodic market analysis and determine the **minimum number of national mobile network operators necessary to foster competition** (e.g. Ofcom analysis and related measures for ensuring 4 viable national wholesalers)

- **Safeguard competition in EU’s 14 progressive markets (eg. UK, Italy, France, Poland)**
  - **Block the takeovers of independent challenger operators** (e.g. 3, Free Mobile, Play) by incumbent operators already present in the national market (in-market consolidation)
  - **Block the takeovers of independent challenger operators** (e.g. 3, Free Mobile, Play) by other multinational incumbent telco groups who are not present in the country (cross-border consolidation that will increase concentration on European level and severely limit competition on a national level)

- **Telecom market definition for competition analysis**
  - Mobile networks (radio sites) are intrinsically local based. Spectrum is a scarce national resource. Mobile wholesale networks are assigned national frequencies along country borders and build local radio access distribution networks. **Competition in the mobile markets is therefore intrinsically confined by the number of licensed wholesale national networks.**

“...concerns were also expressed about an aggregation of market powers in the hand of a few companies” European Council of Telecom Ministers Luxemburg 6th June 2013

Three simple steps to complete EU'S Single Telecom Market

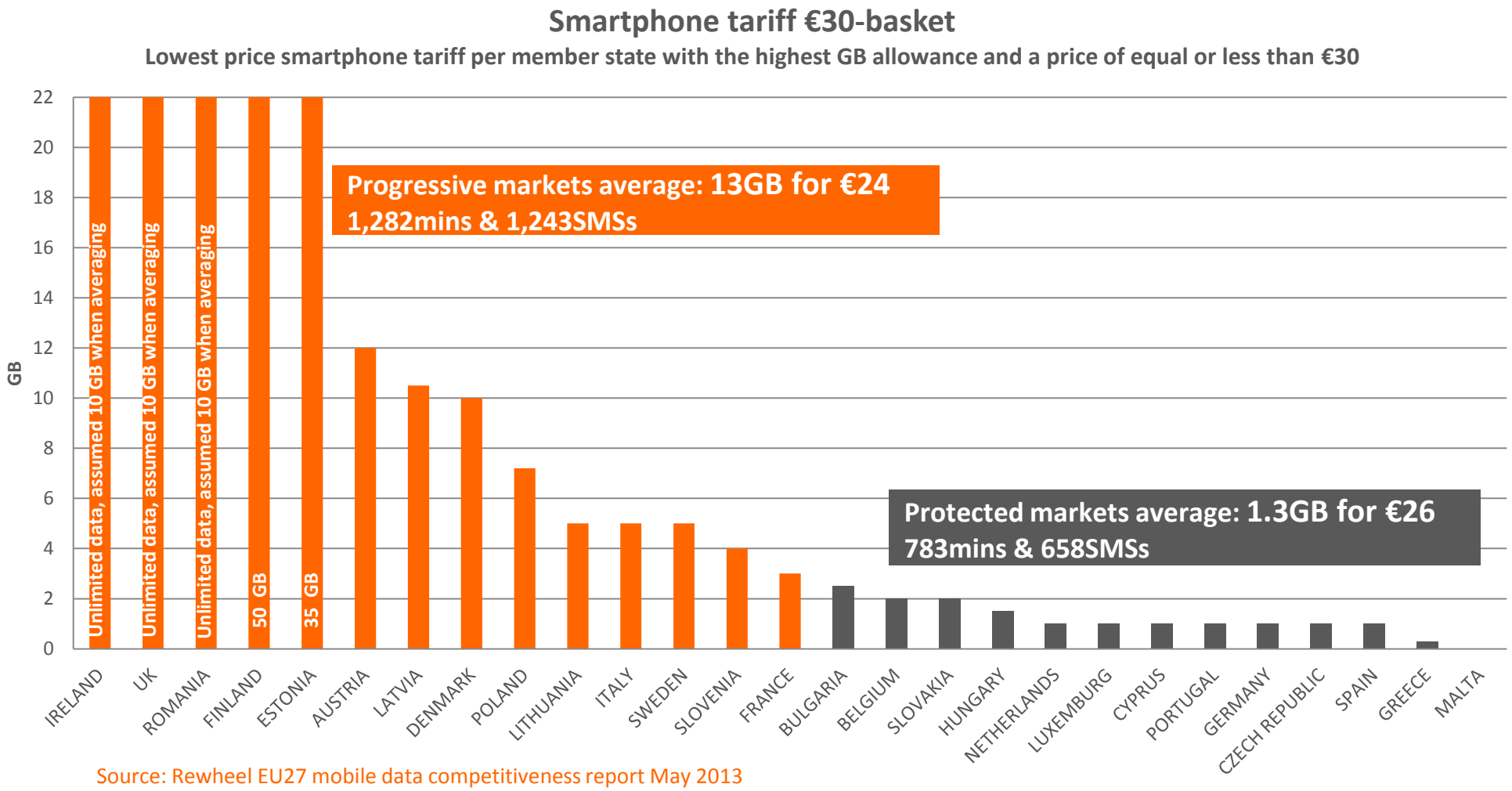
- **EU single telecom market needs EU borderless tariffs and pan-European retail operators**
  - European Commission's goal "the difference between roaming and national tariffs to approach zero by 2015" seems truly unattainable as far as smartphone tariffs are concerned. **The reference smartphone tariff could become an EU single tariff** by simply requiring that the data, minute and SMS allowances could be freely (no extra charges) used while roaming anywhere in EU.
  - **EU's single telecom needs pan-European retail operators that offer borderless tariffs**. Why there are none today? Clearly the multinational incumbent telco groups have no incentive to end the roaming feast or offer Austrian level prices to Germans (T-Mobile Austria charges €17 while T-Mobile Germany charges €96 for the same smartphone tariff allowances).
  - But why there are no MVNOs that offer such service? It is technically possible and could be financially lucrative for an MVNO to offer a borderless EU tariff. One possible explanation is that MVNOs could be **contractually prohibited to use local wholesale agreements to connect roamers or citizens from other member states** (a Dutch that works in Belgium). Such practice runs against EU's single market rules and should be banned.

According to Vice President Kroes "Europe is now profiting from a consistent, long-term policy put in place by national regulators: low prices, more transparency and more competitiveness"

EU single telecom market cannot exist without a borderless EU tariff!

Supporting slides

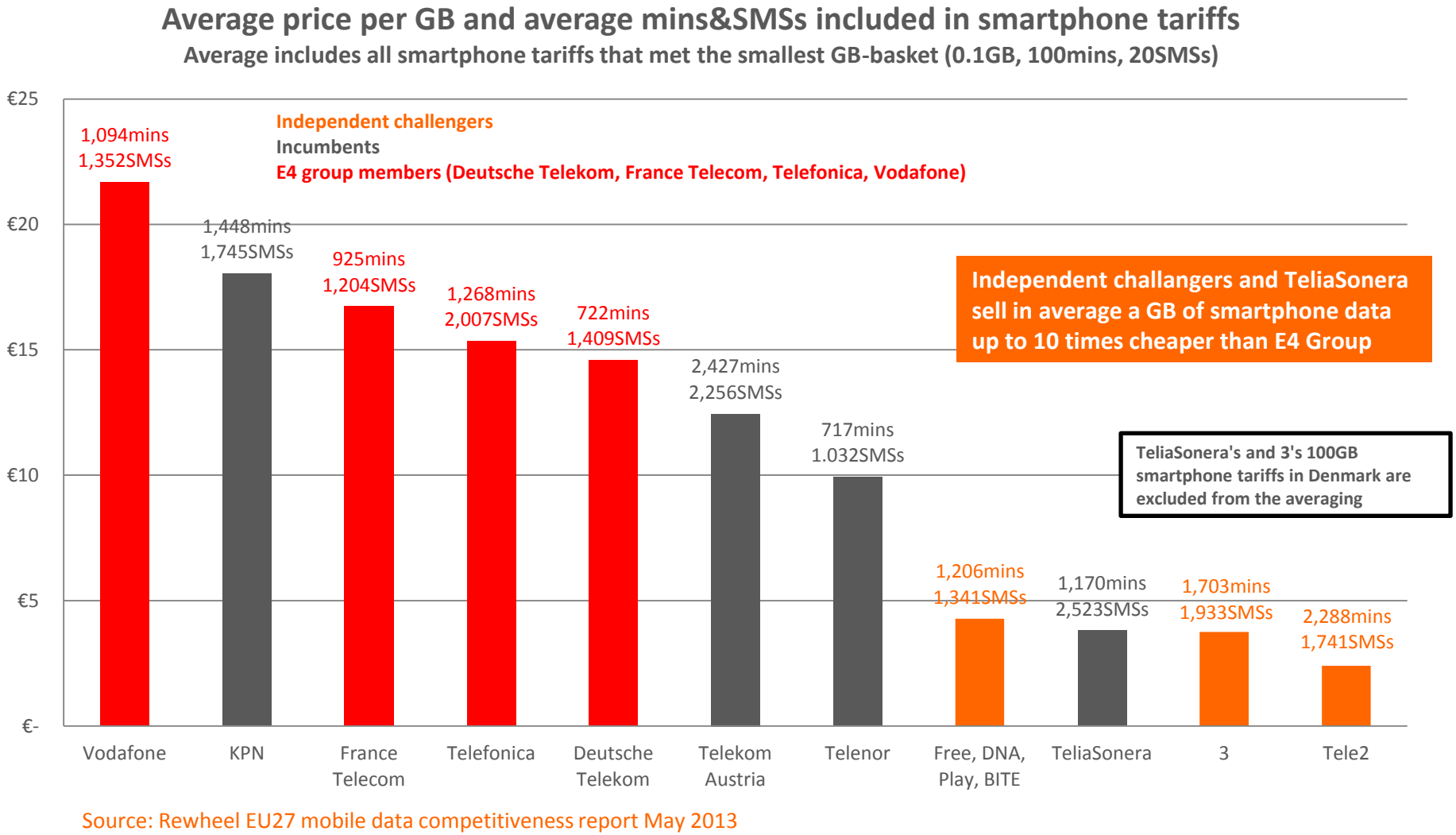
€30 smartphone tariff basket in EU27 member states



Source: Rewheel EU27 mobile data competitiveness report May 2013

In progressive markets consumers get on average 10 times more (13GB vs 1.3GB) smartphone data volume than in protected markets when spending €24. On top they also get twice more minutes and SMSs

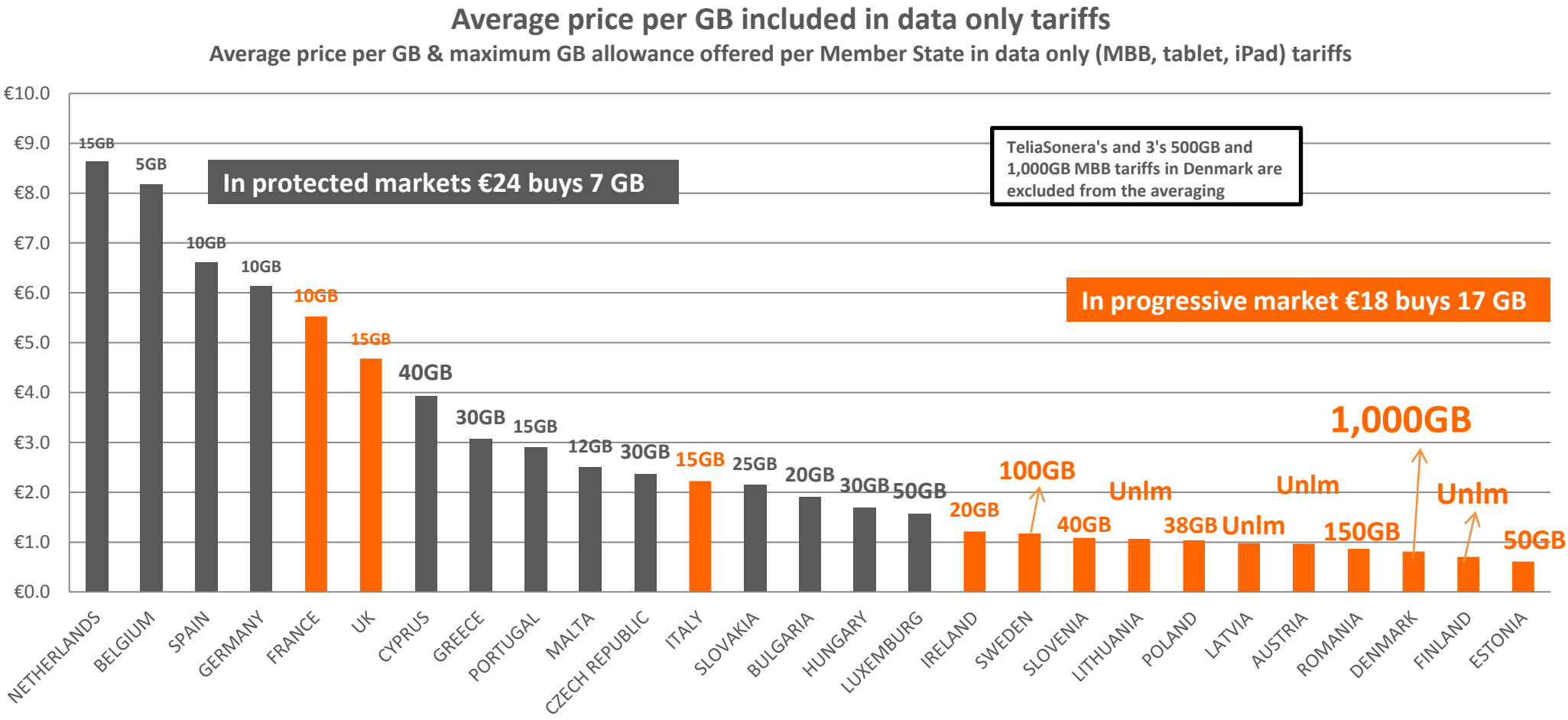
Do multinational incumbent and challenger MNO groups price the same?



Source: Rewheel EU27 mobile data competitiveness report May 2013

Independent challengers (e.g. Tele2 and 3) price on average a GB of smartphone data volume (including similar sized voice minute and SMS bundles) up to 10 times cheaper than Vodafone, KPN, France Telecom, Telefonica or Deutsche Telekom.

And what about data only tariffs?



Source: Rewheel EU27 mobile data competitiveness report May 2013

In progressive markets (e.g. Estonia, Finland and Denmark) a GB of mobile broadband data volume costs on average up to 14 times cheaper than in the Netherlands which is the most expensive market in the EU for mobile broadband.

Thank you

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Visit http://www.rewheel.fi/insights_15.php to download the full EU27 mobile data competitiveness public report or visit insights.rewheel.fi for more

Rewheel is specialised into being in the forefront of the mobile data transformation

Since 2009 we have advised over 10 European mobile operators, including independent players and Tier-1 OpCos, as well as several regulators and a number of private equity and institutional investors and various mobile-date centric startups.

Since the onset of the mobile broadband centric 900, 1800 and 2100 MHz license renewal avalanche in 2011 in Europe we have been providing strategy, spectrum valuation and auction theory advice (together with our world class CCA/SMRA auction theorist partners) to five European award processes (operator or regulator side depending on country), including new entrants and acquisitions as well as license renewals in multi-band (typically 800,900,1800,2100 and 2600 MHz) auctions. So far our advisory support has been directly impacting over EUR 1bn of European spectrum investments/state proceeds.